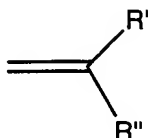


Amendments to the Claims

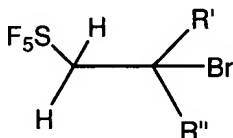
The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (currently amended) A process for adding an SF₅ group and Br atom to a terminal alkene of the formula:



to produce a compound represented by the structure:



wherein R' and R'' are separately H, C₁₋₂₀, alkyl or substituted alkyl, aryl or alkyl substituted aryl, C₁₋₁₀ alkoxy, C₁₋₁₀ alkyl ether, alkenyl, alkyl halogen, alkyl thionyl and alkyl amino, which comprises:

condensing SF₅Br in said terminal alkene and, then,

~~effecting~~ reacting of said terminal alkene with SF₅Br under liquid phase conditions.

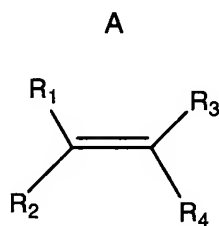
2. (currently amended) The process of Claim 1 wherein the terminal ~~olefin~~ alkene is selected from the group consisting of propylene, isobutylene, pentene, hexene, heptene, octene, decene, dodecene, 4-vinyl-1-cyclohexene, styrene, divinyl benzene and dienes selected from the group consisting of 1,4-pentadiene, 1,4-hexadiene, 1,5-hexadiene and 1,4-heptadiene, 1,5-heptadiene, and 1,6-heptadiene.

3. (Original) The process of Claim 2 wherein the reaction is carried out at a temperature of from -90 to +50 °C.

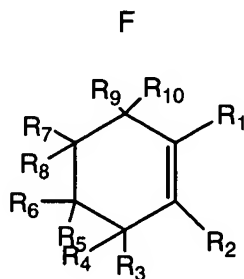
4. (currently amended) The process of Claim 3 wherein a free radical initiator is added in an amount of from 1- 25 mole % per mole of terminal alkene and the free radical initiator is a trialkyl borane.

5. (Original) The process of Claim 4 wherein the free radical initiator is a triethyl borane and the reaction is carried out at a temperature of from -90 to 0 °C.

6. (currently amended) A process for adding an SF₅ group and a bromine atom to an alkene having an internal olefinic bond selected from aliphatic and cycloaliphatic olefins represented by the formulas:

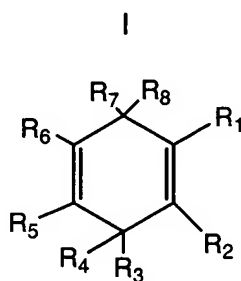


wherein R₁, R₂, R₃, R₄ = C₁₋₁₂ alkyl or substituted alkyl, aryl or substituted aryl, alkoxy, alkyl ether, alkyl ester and nitrile, with R₂ and R₄ additionally being = H or halogen atoms;



wherein R_1 - R_{10} = H, halogen atoms, C_{1-20} , alkyl or substituted alkyl, aryl or alkyl substituted aryl, C_{1-10} alkoxy, C_{1-10} alkyl ether, alkenyl, alkyl halogen, alkyl thionyl, alkyl amino, and wherein R_9 , R_{10} or R_3 , R_4 also represent a carbonyl group; R_9 or R_{10} and R_4 or R_3 also represent a bridged bicyclic compound; and wherein R_7 or R_8 and R_5 or R_6 may also represent a fused ring bicyclic or tricyclic cycloaliphatic or aromatic compound;

and



wherein R_1 - R_8 = H, halogen atoms, alkyl or substituted alkyl, aryl or substituted aryl or R_7 or R_8 and R_4 or R_3 may be bridged bicyclic compounds, R_7 or R_8 and R_5 or R_6 may be fused to form bicyclic or tricyclic cycloaliphatic rings:

which comprises condensing SF_5Br in said alkene and ~~effecting the reaction of~~ reacting said alkene with SF_5Br under liquid phase conditions in the presence of a free radical initiator.

7. (Original) The process of Claim 6 wherein said free radical initiator is selected from the group consisting of trialkyl borane, organic peroxide, organic azo, and ultraviolet light.

8. (Original) The process of Claim 7 wherein the temperature of said reacting is from -90 to +50 °C.

9. (Original) The process of Claim 8 wherein the free radical initiator is triethyl borane.

10. (currently amended) The process of Claim 9 wherein the reaction stoichiometry employs ~~a slight excess of SF₅Br reactant, e.g.,~~ in an amount from 1.05 to 1.2 moles SF₅Br per mole of olefin bond in said alkene.

11. (currently amended) The process of Claim 10 wherein triethyl borane is employed in an amount from 1-25 mol% based upon the moles of the olefin bond in said alkene to be ~~treated~~ reacted.

12. (currently amended) The process of Claim 11 wherein triethyl borane is employed in an amount from 5-10 mol %, based upon the moles of the olefin bond to be ~~treated~~ reacted.

13. (Original) The process of Claim 9 wherein the alkene is represented by formula A and said alkenes is selected from the group consisting of pentene, hexene, heptene, octene, decene, and dodecene.

14. (Original) The process of Claim 9 wherein the alkene is represented by structure F and said cyclic olefin is selected from the group consisting of: cyclohexene, cyclooctene, norbornene, dihydronaphthalene, dihydroanthracene, dihydrophenanthrene, octahydronaphthalene, dodecahydroanthracene, dodecahydrophenanthrene.

15. (Original) The process of Claim 9 wherein the alkene is represented by structure I and said cyclic olefin is selected from the group consisting of 1,4-cyclohexadiene, 1,6-hexahydronaphthalene, 9,13-tetrahydroanthracene.

16. (currently amended) A ~~composition~~ compound represented by the structures:



wherein R_1 - R_8 = H, halogen atoms, alkyl or substituted alkyl, aryl or substituted aryl or R_7 or R_8 and R_4 or R_3 may be bridged bicyclic compounds, R_7 or R_8 and R_5 or R_6 may be fused to form bicyclic or tricyclic cycloaliphatic rings:

17. (currently amended) The ~~composition~~ compound of Claim 16 wherein R_1 - R_8 are H.

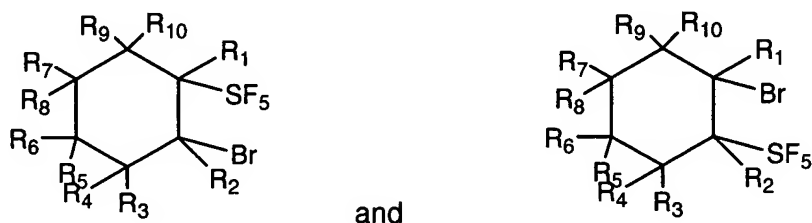
18. (currently amended) A ~~composition~~ compound represented by the structures:



wherein R_1 , R_2 , R_3 , R_4 = C_{1-12} alkyl or substituted alkyl, aryl or substituted aryl, alkoxy, alkyl ether, alkyl ester and nitrile, with R_2 and R_4 additionally being = H or halogen atoms.

19. (currently amended) The ~~composition~~ compound of Claim 18 wherein R_2 and R_4 are C_{3-8} alkyl.

20. (currently amended) A ~~composition~~ compound represented by the structure:



wherein R_1 - R_{10} = H, halogen atoms, C_{1-20} , alkyl or substituted alkyl, aryl or alkyl substituted aryl, C_{1-10} alkoxy, C_{1-10} alkyl ether, alkenyl, alkyl halogen, alkyl thionyl, alkyl amino, and wherein R_9 , R_{10} or R_3 , R_4 also represent a carbonyl group; R_9 or R_{10} and R_4 or R_3 also represent a bridged bicyclic compound; and wherein R_7 or R_8 and R_5 or R_6 may also represent a fused ring bicyclic or tricyclic cycloaliphatic or aromatic compound.

21. (currently amended) The ~~composition~~ compound of Claim 20 wherein R_1 - R_{10} are H.